

# **Using Your School Health Profiles Results**



## 2010 School Health Profiles Report

### USING YOUR SCHOOL HEALTH PROFILES RESULTS

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This booklet is designed to assist you with understanding the results in the School Health Profiles (Profiles) report and with presenting the results effectively. This booklet has two sections:

- **Understanding Your Profiles Results:** This section describes the content of the two major parts of your report binder—Results and Documentation.
- **Reporting Your Results:** This section includes guidelines for planning and developing reports, choosing the method for reporting, and using effective graphics. This section also describes additional data sources you can use to supplement your Profiles results.



# 2010 School Health Profiles Report

## Understanding Your Profiles Results

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Effective reporting of your Profiles results enables you to provide a broad audience with factual information on school health policies and practices in the following areas: school health education; physical education; school health policies related to HIV infection/AIDS, tobacco-use prevention, and nutrition; asthma management activities; and family and community involvement in school health programs. The data contained in your report can be used to provide the support for concrete recommendations to education agencies, public health officials, parents, and those who assist in the development of your school health programs.

The first section of this booklet describes the contents of the report binder, which consists of two types of information—Results and Documentation.

### **Results**

- Background
- School-Level Impact Measures (SLIMs) Results
- Principal Survey Results Tables
- Principal Survey Results Charts
- Teacher Survey Results Tables
- Teacher Survey Results Charts
- Trend Analysis Report

### **Documentation**

- Sample Description and Weighting Procedures
- Questionnaires
- Item Rationale
- Codebooks
- Data User's Guide

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## Results

### Background

The Background provides a brief explanation of the purpose of Profiles and the topics covered by the survey. There is also a description of the schools included in the survey, the response rates, and the weight status. (The difference between weighted and unweighted data is explained on page 10 of this booklet.) A sample background page follows.

**MEGATROPOLIS**  
**2010 School Health Profiles Report**  
**Background**

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The School Health Profiles (Profiles) assists state and local education and health agencies in monitoring and assessing characteristics of school health education; physical education; school health policies related to HIV infection/AIDS, tobacco-use prevention, and nutrition; asthma management activities; and family and community involvement in school health programs. Data from Profiles can be used to improve school health programs.

Two questionnaires are used to collect data - one for school principals and one for lead health education teachers. The two questionnaires were mailed to 407 regular secondary public schools containing any of grades 6 through 12 in Megatropolis during spring 2010. Usable questionnaires were received from 81% of principals and from 81% of teachers. Because the response rates for these surveys were greater than or equal to 70%, the results are weighted and are representative of all regular public secondary schools in Megatropolis having at least one of grades 6 through 12. Results from the principal and lead health education surveys are presented for the following types of schools in Megatropolis:

- High schools with a low grade of 9 or higher and a high grade of 10 or higher;
- Middle schools with a high grade of 9 or lower;
- Junior/senior high schools with a low grade of 8 or lower and a high grade of 10 or higher; and
- All schools.

The Profiles questionnaires were developed by the Division of Adolescent and School Health, National Center for Chronic Disease Prevention and Health Promotion, Centers for Disease Control and Prevention in collaboration with representatives of state, local, and territorial departments of health and education.

### SLIMs Results

Sites that received funding for Priorities 2, 3, or 4 of the CDC/DASH cooperative agreement (DP08-801) are required to “document the impact of their program activities by monitoring the percentage of schools in their jurisdiction that are implementing specific, effective...policies and practices.” The results from your 2010 Profiles survey can be used to monitor the effect of your program activities by comparing the SLIMs results from the 2008 and 2010 Profiles.

In this section of the report, tables provide each SLIM and the percentage of schools meeting the requirements for the SLIM. The SLIMs results are organized by funding priorities—Part I corresponds to Human Immunodeficiency Virus (HIV) Prevention (Priority 2), Part II corresponds to Coordinated School Health and Promotion of Physical Activity, Nutrition, and Tobacco-Use Prevention (Priority 3), and Part III corresponds to Asthma Management (Priority 4). The funding priority for each table is identified at the top of the page. The example that follows presents the results for the HIV prevention SLIMs. Below the title are two or three columns, depending on weight status and whether a census or a

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sample was used. The column on the left identifies the SLIM. The second column provides the percentage of schools meeting the SLIM. The 95% confidence interval, if available, will be found in the third column on the far right.

If one or both of your surveys were unweighted, SLIMs will still be calculated and reported. However, interpretation of the SLIMs will be limited due to the unweighted status of the data (see page 10 for an explanation of unweighted data). To indicate unweighted data, the SLIM description and result will be shaded. Also, because the data are unweighted, 95% confidence intervals will not be provided.

The 95% confidence interval can be used to determine whether or not there is a significant difference between the 2008 and 2010 SLIMs results. Compare the confidence intervals from 2008 and 2010. If they overlap, there is no significant change; if they do not overlap, there is a statistically significant difference between the 2008 SLIM result and the 2010 SLIM result. If a census was conducted, there will be no confidence intervals for the SLIMs. If you are interested in comparing results from a census, one method that has been used to determine meaningful differences between two percentages is an absolute difference of 10 percentage points.

Another method of comparing 2008 and 2010 SLIMs results is to calculate a linear trend. The results of such calculations can be found in your Trend Analysis Report (see pages 8 and 9).

<b>MEGATROPOLIS</b> <b>2010 School-Level Impact Measures (SLIMs)</b> <b>Weighted Principal and Teacher Survey Results</b> <b>Part I: Human Immunodeficiency Virus (HIV) Prevention SLIMs</b>		
School-Level Impact Measure (SLIM)	Percentage of Schools Meeting SLIM	95% Confidence Interval
HIV 1. The percentage of schools that address all of the following in a required course taught during grades 6, 7, or 8: <ul style="list-style-type: none"><li>• The differences between HIV and AIDS.</li><li>• How HIV and other STD are transmitted.</li><li>• How HIV and other STD are diagnosed and treated.</li><li>• Health consequences of HIV, other STD, and pregnancy.</li><li>• The benefits of being sexually abstinent.</li></ul>	91.3	86.5 - 94.5

While most questions remained unchanged in the 2010 Profiles questionnaires, a few changes, such as the addition of response options, were deemed necessary. These changes did impact a few of the SLIMs. In addition, some SLIM requirements changed. For certain SLIMs in 2008, meeting only one element of a list was necessary to meet the requirements. In 2010, it was necessary to meet all elements of that list to meet those SLIMs. For each affected SLIM, we report 2010 results for both the 2008 and 2010 versions of the SLIM. If you selected one of the SLIMs affected by the changes, be sure to use the 2008 version of the SLIM in the 2010 report to compare with the SLIM result in the 2008 report.

Please contact your CDC/DASH Project Officer for more information on how to interpret the results as part of your cooperative agreement.

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### Principal Survey Results Tables and Teacher Survey Results Tables

The report provides tables and charts of all your results. Each table uses the same format and can be found behind the tabs labeled “Principal Survey Results” and “Teacher Survey Results.” The example table below will help illustrate the format.

<p style="text-align: center;"><b>MEGATROPOLIS</b>  <b>2010 School Health Profiles Report</b>  <b>Weighted Principal Survey Results</b></p>												
12. Percentage of schools in which all staff who teach health education topics are certified, licensed, or endorsed by the state in health education.												
	High Schools			Middle Schools			Junior/Senior High Schools			All Schools		
	Percent	95% Confidence Intervals	N	Percent	95% Confidence Intervals	N	Percent	95% Confidence Intervals	N	Percent	95% Confidence Intervals	N
a. Yes	98.5	97.8 - 99.8	118	98.3	96.4 - 99.4	209	-	-	-	98.4	97.2 - 99.2	327
b. No	1.5	0.2 - 2.2	118	1.7	0.6 - 3.6	209	-	-	-	1.6	0.8 - 2.8	327
c. Not applicable	0.0	†	118	0.0	†	209	-	-	-	0.0	†	327

The title of each table tells whether the data describe information from school principals or lead health education teachers, and whether the data are weighted or unweighted.

The question number and a summary of the question appear under the title. Response options for the question or subparts of the question are listed on the far left of the table. In some tables, question numbers are followed by the letter N (e.g., 21N). The data contained in these tables were derived from combining two or more response options to a single question or two or more questions or question subparts. Where this occurs, the response options, questions, or question subparts used in creating the combined variable are listed in a footnote.

The results are provided for **All Schools** regardless of weight status. However, if your data are weighted, each table also lists responses for three categories of schools:

- **High schools**, defined as those with a low grade of 9 or higher and a high grade of 10 or higher;
- **Middle schools**, defined as secondary schools with a high grade of 9 or lower; and
- **Junior/senior high schools**, defined as secondary schools with a low grade of 8 or lower and a high grade of 10 or higher.

Each category will have two or three columns: Percent, 95% Confidence Intervals (if applicable), and N. The **Percent** column shows the percentage of schools in each of the three categories that responded as described in the question summary at the top of each table. If the data are weighted, it is a weighted percentage; if the data are unweighted, it is an unweighted percentage. In the example table above, in 98.5% of high schools in the state, all staff who teach health education are certified, licensed, or endorsed by the state in health education.



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If you conducted a census of schools, the weighted percentage is considered the “true” value. If you have selected a sample of schools instead of a census and the data are weighted, the **95% Confidence Interval** for the percentage reported will be in the column following the percentage. The 95% confidence interval provides the range of values within which the “true” percentage lies. A 95% confidence interval means that if the survey were repeated many times, the “true” value would fall within the interval 95% of the time.

When the confidence interval is relatively narrow, you have a more precise indication of the percentage of schools with health education teachers who are certified, licensed, or endorsed in health education. Wider confidence intervals diminish the ability to report results with precision. In the example table on page 6, the confidence interval is 97.8 to 99.8. This means you can be 95% confident that the “true” percentage of schools could be as low as 97.8% or as high as 99.8%.

If you are interested in comparing two percentages, confidence intervals can also be used for comparisons. If the confidence intervals of two groups you are interested in comparing do NOT overlap, the results are considered significantly different. If the confidence intervals DO overlap, the two results are not considered significantly different. Using the results from the example table on page 6, we can compare the percentage of high schools (98.5%) to the percentage of middle schools (98.3%) in which all health education teachers are certified, licensed, or endorsed. The confidence interval for high schools is 97.8 to 99.5 and the confidence interval for middle schools is 96.4 to 99.4. The two confidence intervals do overlap—therefore, the percentage of high schools in which all staff who teach health education are certified, licensed, or endorsed by the state in health education is NOT significantly different from the percentage of middle schools in which this is the case.

If you conducted a census of schools, you will not have confidence intervals. If you are interested in comparing results from a census, one method that has been used to determine meaningful differences between two percentages is an absolute difference of 10 percentage points. For example, if the percentage of middle schools with a certain requirement is 67% and the percentage of high schools with that same requirement is 92%, that is a meaningful difference because the difference between 67 and 92 is greater than 10.

Statistical testing can also be used to determine significant differences between two percentages for both sample and census surveys. The CD-ROM included with this report binder contains copies of the data sets that can be used for this purpose. Please refer to the statistical software documentation for further guidance.

The **N** column shows the total unweighted number of observations for each category of school (high school, middle school, and junior/senior high school) and all schools. Stated another way, **N** is the number of schools in each category or overall that provided any response to the question or subparts of the question. For example, in the table on page 6, the principals in 118 high schools answered question 12.

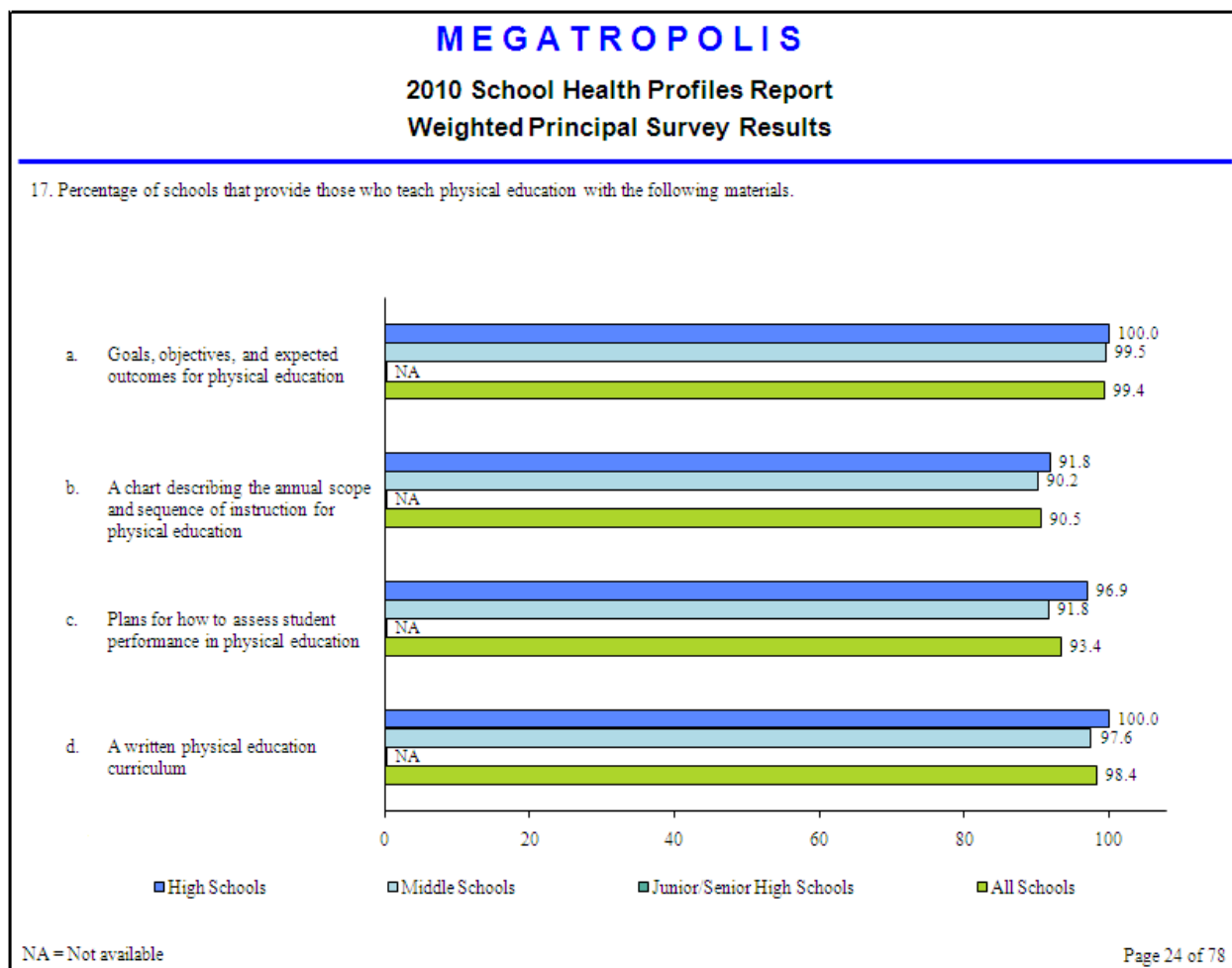
### Principal Survey Results Charts and Teacher Survey Results Charts

If the results are weighted, bar charts presenting the table results graphically are provided. The charts immediately follow the tables in the tabbed sections labeled “Principal Survey Results” and “Teacher Survey Results.” The question number and summary of the question appear below the title. The response options or subparts of the question are listed down the left margin of the chart. Each item in the chart

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contains four bars: one for each of three categories of schools (high school, middle school, and junior/senior high school) and one for all schools combined (all schools). Each bar represents the percentage of schools in each category and overall that responded to the question as described in the question summary at the top of each chart. For each bar, the percent is to the right of the bar.

A sample bar chart appears below. These bar charts are in a PowerPoint file on the CD that you received with your report. The charts are useful for creating presentations or adding to your own Profiles report.



### Trend Analysis Report

A Trend Analysis Report is generated for sites that have weighted Profiles data for at least one survey (Principal or Lead Health Education Teacher) in 2010 and in at least one other survey year since 1998. If you did not have weighted data in 2010, a Trend Analysis Report has not been included in your 2010 Profiles report.

The Trend Analysis Report describes whether school health policies and practices measured by Profiles have increased, decreased, or stayed the same over time. The report contains three parts: variables from the Principal Survey, variables from the Lead Health Education Teacher Survey, and School-Level Impact Measures (SLIMs).

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The title at the top of each page indicates whether the data are from the Principal Survey, the Lead Health Education Teacher Survey, or the SLIMs. Each page contains three sets of columns: the variable, the prevalence for each survey year, and the change over time.

The first column is the **Variable**, which lists every 2010 Profiles question that has been included in at least one other Profiles survey year. The text reflects the response or responses of interest for the particular variable. The variables are organized by topic, such as School Health Coordination, HIV Infection and AIDS Prevention, Required Physical Education, Physical Education and Physical Activity, Tobacco-Use Prevention Policies, Nutrition-Related Policies and Practices, and Health Services.

The second set of columns provides the **Prevalence** estimate for each variable by year. The prevalence estimate is the percentage of schools that reported the response of interest described in the variable column. A blank for a given question or year signifies that weighted data were not obtained that year or that the question was not asked that year.

The third set of columns presents the results for **Changes Over Time**. This set of two columns indicates whether there was a significant *linear* and/or *quadratic* change in prevalence over time. Unlike using the overlapping confidence intervals or the absolute change in percent mentioned previously, statistical analyses have been used to test for change over time. These analyses use all available years of data. They do not simply consider only the oldest and the most recent data points. If there was a statistically significant change over time, a “Yes” will appear in the column; no significant change is indicated by a “No” in the column. Further explanation of how to interpret the trend analysis results is provided in the Trend Analysis Report User Documentation included with the report.

Note: If a census was conducted, statistical tests are not needed to determine significant changes in prevalence over time. Prevalence estimates are exact and changes over time can be judged by the absolute differences between prevalence estimates. Therefore, there will be no results in the linear or quadratic change columns for sites conducting a census.

MEGATROPOLIS							
2010 School Health Profiles Results							
Trend Report - Principal Survey							
	Prevalence Survey Year						
	2002	2004	2006	2008	2010	Linear Change	Quadratic Change
Required Health Education							
Percentage of schools that required health education for students in any of grades 6 through 12	99.0			98.0	99.0	No	Yes
Percentage of schools that required students to take only one health education course	19.6			26.6	23.6	No	Yes
Percentage of schools that required students to take two or more health education courses	75.1			70.3	79.3	No	Yes

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## Documentation

The information provided in the Documentation section of the report is useful when incorporating the results into reports or presentations and when doing further data analysis. The documentation describes the sample and the population represented by the results; the weight status and the calculation of the response rate; the rationale behind the questions included on the questionnaires; how the data were edited and analyzed; and how the data files, which are included on the CD-ROM that comes with the report, are formatted.

## Sample Descriptions and Weighting Procedures

The Principal Survey and the Teacher Survey are weighted separately. Each survey has a Sample Description and Weighting Procedures document in the binder. The document describes the type of schools surveyed (e.g., all regular secondary public schools having at least one of grades 6 through 12) and the method used to select the sample of schools. The number of principals/teachers in the sample, the number of eligible principals/teachers who returned the questionnaires, the response rate, and how the weights are calculated are also provided.

Being able to describe the population the results represent and provide support for generalizing the results to the population is important when presenting the results. Your ability to generalize the results of your Profiles is determined by whether your data are unweighted or weighted. If your survey response rate is less than 70%, your data are unweighted. If it is 70% or greater, you have used a scientifically selected sample, and you provided all necessary documentation, your data have been weighted.

If the data are **weighted**, the percentages refer to **all** schools in that category within your jurisdiction. For example, if the data are weighted and 30% of the schools in the high school category report they require health education, you can report that 30% of high schools in your jurisdiction require health education.

If the data are **unweighted**, the data in the tables refer **only** to those schools whose principals or teachers actually participated in the survey. For example, if you have unweighted data and 30% of schools in the sample report they require health education, you can report that 30% of the schools that participated in the survey require health education.

## Questionnaires and the Questionnaire Item Rationale

The questionnaires and Item Rationale have been included for your reference. The Item Rationale explains why each question was selected for inclusion and what the question can be used to assess. References are also provided as background for each question. There are separate Item Rationales for the Principal and Teacher questionnaires.

## Codebooks

There are three codebooks included with the report. You will find one codebook for each of the three data files on the CD-ROM—the Principal data file, the Lead Health Education Teacher data file, and the HIV

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SLIMs 4 and 10 data file, which includes data from both the Principal and Teacher surveys. The data for the remaining SLIMs are included in either the Principal or Teacher data file. Included in the codebooks are data locations, variable names, question codes, and labels—information necessary when conducting secondary data analysis.

### **Profiles Data User's Guide**

The Profiles Data User's Guide describes how all variables in the report are calculated. This includes the standard variables, supplemental variables (variables calculated from one or more than one question or response option), and the SLIMs. The editing protocol applied to the data, including recoding the data and applying missing value codes, is described. A sample SUDAAN program is also provided. The information in the Data User's Guide is useful for anyone interested in secondary data analysis, or just interested in how the data are edited and the results are calculated.

## 2010 School Health Profiles Report

### Reporting Your Results

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Reporting your results to the appropriate audiences in an effective and timely manner can:

- Increase commitments to support school health policies and programs;
- Help you make concrete, data-supported recommendations for school health policies and programs in your district or state;
- Enable you to respond more easily and effectively to public and media requests for information about school health policies and programs; and
- Encourage increased participation in future years.

This section includes guidelines for planning and developing reports, choosing the method for reporting, and using effective graphics. This section also describes additional data sources you can use to supplement your Profiles results.

### Planning and Developing Effective Reports and Choosing Methods of Reporting

When planning your report, consider the following:

- Audience;
- Content;
- Style and format; and
- Method of reporting.

Determining your **audience** is the first step in planning and developing your report or reports. A primary audience for your Profiles results is CDC, but legislators, school board members, and district/state administrators are other audiences for your Profiles. Education department officials and program staff, teachers, trainers, parents, and the community may also be interested in your results.

Your audience will determine the **content** of the report. Vary the materials you use for reporting to different audiences and consider the following for each group:

- Existing levels of knowledge;
- Key concerns and issues;
- Method of presentation most likely to draw that group's attention; and

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- Types of information most likely to motivate action.

Emphasize those aspects of your Profiles data that are most interesting to each audience. Focus on the most important points you want to make instead of overwhelming your audience with details. Provide only the level of detail the audience needs or has requested.

Your results will be more meaningful if presented with other relevant data. You may want to compare your district or state data to data that reflect general national results. Other potential sources of data include the following:

- Previous School Health Profiles results;
- The School Health Policies and Programs Study 2006;
- Your district or state Youth Risk Behavior Survey (YRBS), Youth Tobacco Survey (YTS), and other student surveys;
- The national school-based YRBS and the national YTS;
- Your state Behavioral Risk Factor Surveillance System (BRFSS);
- Survey results from other states and cities and national organizations;
- Health outcome data; and
- National health statistics from federal agencies.

Examples of combining the YRBS results and the Profiles results can be found on the CDC/DASH web site (<http://www.cdc.gov/healthyyouth/profiles/index.htm>). If current YRBS and Profiles results were available, three fact sheets were created for sites on the topics of Childhood Overweight, HIV, and Tobacco Use.

Consider the **style and format**, as well as the content of the product you will target to each audience you want to reach. Organize your findings in a way that clarifies implications for each particular audience. Reports that contain visual images are more powerful than those with just written text.

Once you have selected the findings and determined a style and format that will have the most impact, the final step is to develop the appropriate **method** for dissemination. Keep in mind that using more than one method enhances your chance of reaching and persuading a broad audience.

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Some examples of formats that can be used include:

**Executive summary.** A two- or three-page executive summary should include all the relevant information generally needed for the reader to become informed about the subject. Use this reporting mechanism to make recommendations for change based on the reported information.

**Comprehensive report.** Include many or all findings and details from your Profiles in a comprehensive report. Use bullets, boxes, and graphics to emphasize what you want the reader to remember. Include your executive summary as an introduction. Organize the report by topic and include principal data and teacher data in each section as appropriate.

**Newsletter.** Use a newsletter to report information specifically addressed to certain groups of people, such as teachers, parents, or other professional or community groups. Contribute to existing newsletters or develop your own. Publishing in the state/district principal and teacher newsletters is a way of gaining support for future surveys.

**Fact sheets and brochures.** A single-page fact sheet or threefold brochure should focus on three or four key results. Fact sheets also might contain some information about your YRBS results. Include your project name, address, and telephone number. Fact sheets can be used easily to disseminate information widely.

**Visual presentation.** In addition to written reports, you may want visual presentations to report your results before an audience. Consider creating a PowerPoint presentation depicting the most important findings from your Profiles. Include text interspersed with graphs that focus on a single finding.

**Web site.** You may want to include your findings on an existing web site or create a web site so you can share your Profiles data more easily and with many interested parties.

### Using Effective Graphics

In reporting statistical data, graphic representation can be extremely useful in displaying results in an easy-to-understand manner. Graphics are charts, graphs, and other visual forms for presenting information. Graphic presentation of data is a powerful tool when effectively used. Graphic enhancements are often the sparks that bring life, attention, and interest to a report or presentation. Graphic images help demonstrate group differences and aid in the explanation of survey findings.

The remainder of this booklet has been developed to help you prepare accurate and effective graphics. It focuses primarily on graphics used in presentations, but the same guidelines can be used when including graphics in any report format, whether it be electronic or print. The guidelines are not intended to constrain creativity, but rather to encourage and support accuracy and consistency in the display of information. Your Profiles report CD-ROM contains graphs for all of your questions in a PowerPoint presentation format. If you want to add additional “slides” or modify this presentation, you can make these changes yourself or find out about services available in your education or health agency.



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## Planning Your Graphic Presentation

The first step to preparing effective graphic presentations is to ensure that they have a clear purpose. Think about what you are trying to say with the graphic. Keep your message simple and straightforward. Remember that your graphic presentation should highlight your major findings.

Graphic presentations provide an opportunity for you to acquaint various audiences with your program. You must know your audience members so you can design a presentation to best fit their needs. For example, knowing whether your graphics will be viewed by policy makers, such as district superintendents, or by parent groups will help you decide how to present your results.

A graphic's primary function is to inform. This can best be done when data are presented clearly and simply. Simple graphics that are easy to understand will communicate your survey findings much more effectively than tables of raw data. Ideally, your graphics should be both accurate and visually appealing.

Graphics within a presentation should have a consistent style and format. Although many type or font styles are available, using too many different styles can add an inconsistent, cluttered, unprofessional look to an otherwise clean and simple presentation. If you add “slides” to your Profiles report presentation, limit your choices to one or two fonts, and use boldface or italics for emphasis.

Another key factor to consider is the amount of information to convey in a single graphic. Too much information makes a graphic difficult to comprehend, which in turn detracts from your ability to demonstrate important programmatic needs. A series of simple graphics may be far more effective than a single complicated graph. However, be careful not to summarize the information to the point that it misrepresents the actual data.

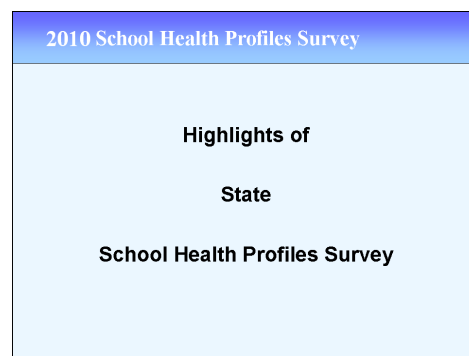
Keeping presentation graphics as simple as possible forces you to interpret and discuss them in a conversational tone rather than reading them verbatim to your audience. Reading your PowerPoint “slides” is boring for both you and your audience. Your graphics should contain the framework rather than all the details of your presentation.

## Selecting Chart Types

Several types of charts can be used to display your data. Choose the one that will best highlight the point you want to make.

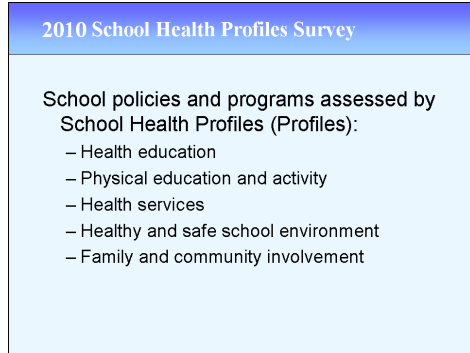
### *Text Charts*

Use text charts to introduce nonnumeric data in a presentation, for example, to introduce or summarize your findings. Text charts should be short and precise in meaning, using the minimum number of short keywords needed to convey your message. Keep lines short by highlighting only the main idea. Limit text charts to eight lines, with no more than 8 to 10 words on a line. Paraphrase rather than use complete sentences. Use initial capital letters and lowercase (as in the example shown) for the rest of the text. USING ALL UPPERCASE LETTERS MAKES TEXT DIFFICULT TO READ.



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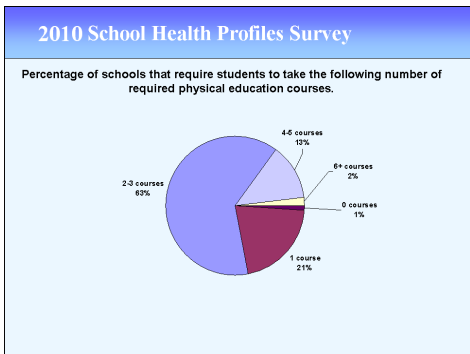
Avoid jargon. Be careful when using abbreviations or acronyms. For example, be sure your audience knows that Profiles stands for School Health Profiles.



Use bulleted lists to group and emphasize related ideas. If you have more than one bulleted list in your report or presentation, the symbol you choose for the bullets should be consistent for all of your graphics. Use a minimum number of indent levels, providing more detail verbally. To avoid monotonous presentations, be careful not to overuse bulleted lists.

### *Pie Charts*

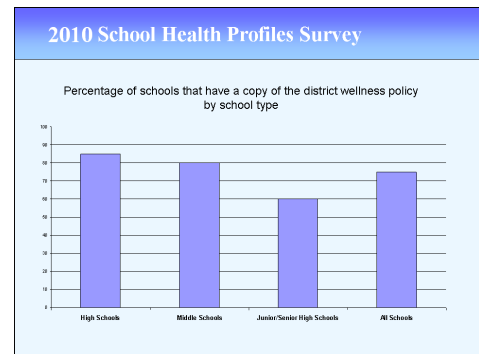
A pie chart is the graphic that answers simple questions about proportions. Each slice represents an individual part of a particular group. “Cutting” (separating) one of the slices emphasizes an element that is part of the whole. For clarity, place labels next to the slices, not in a legend. Include percentages or values in the labels to add detail to the interpretation. Pie charts should contain eight slices at most. When you have more than eight data values, use a bar chart. Use multiple pie charts cautiously; bar charts are more effective in comparing proportions among groups.



Arrange your data from the largest element to the smallest, unless you want to emphasize a particular element or there is a logical order to your categories or elements. Your most important element should start at the 3 o'clock position on the pie. The other elements should progress in importance in a counterclockwise direction, with each slice being a lighter color or shading. For the best color or pattern effects, work from dark to light. Fluctuating between dark and light makes it difficult to see pie shading differences.

### *Vertical Bar or Column Charts*

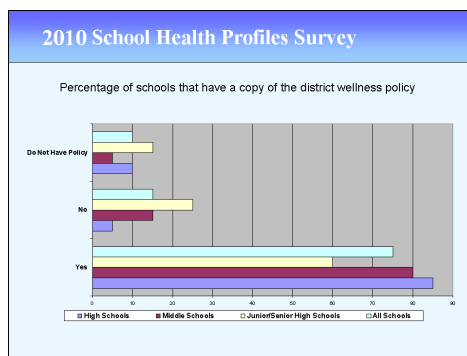
Vertical bars are used to present trends in data such as changes over time or differences among groups. Use bar charts for a relatively small number of discrete data points or groups. Use a clustered bar chart to compare data in more than one category. However, keep the number of clusters small, and limit the number of bars in each cluster to three or fewer.



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### *Horizontal Bar Chart*

Horizontal bar charts are used to show comparisons among parts, groups, or categories. This type of chart will accommodate many values without visual clutter and can indicate exact quantities as well as proportions. Use the same color or fill pattern for all bars. To emphasize one bar, select a contrasting fill pattern or color. The Profiles charts are in this format.



### *Line Charts*

Line charts are used to show changes in data over time or to represent continuous measurements. Like bar charts, line charts answer questions about trends, and they can support an almost unlimited number of data points.

### *Titles and Labels*

Graphics should have clear, concise titles and subtitles. Both axes of a graph should be labeled with the names of the variables, and the scales should be indicated. Titles should be centered at the top or bottom of the graphic. All information necessary to understand the graphic should be included.

### **Production**

Graphics produced for paper copies and those created for computerized digital display require different design formats. It is important to consider the purpose and presentation medium when choosing among pattern, shading, and color options. Computer presentations benefit from use of color. Photocopying printed graphics (unless using a color copier) will obscure color or shading patterns.

### *Electronic Presentation*

You can present your results in the PowerPoint presentation format provided on your CD-ROM without any modification, or you can tailor the report to meet more specific needs. The PowerPoint presentation allows you to add transitions between slides, text builds, and even animation and sound. Transitions are special visual effects that appear when moving from slide to slide. Text builds allow you to show main bullet points on a slide one at a time. These special effects should be used sparingly. You need to preview your presentation to be sure that everything looks good.

When doing an electronic presentation, you will need a computer, a CD-ROM or a flash drive containing your “slides,” and an LCD projector. In the future, LCD projectors connected to computers will probably become as commonplace as slide and overhead projectors. We are not there yet, however, so be prepared and bring your equipment. You may want to bring a printed version as a backup in case of equipment problems.

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### *Internet Web Site*

Presenting data on the Internet has become more commonplace. This format makes it readily available to many audiences. Having data available on the World Wide Web emphasizes the importance of the data and encourages an exchange of information to enhance analysis and presentation.

Preparing data for an Internet site is not difficult. Software packages are available to convert your paper presentation text and graphics into HTML (hypertext markup language) or PDF (portable document file), so it can be viewed on the Internet. Like your paper presentation, you will want to keep it simple and easy to read. Some formats will change in the HTML conversion, so take the time to adjust the format the way you like. Highlight important headings and keep basic facts bulleted. Converting to HTML will allow you to draw attention to links including appendices, tables, graphs, and pie charts, if you choose. By using hyperlinks, you can allow the user to move within your report or to jump to supplemental information available elsewhere on the Internet. Converting to PDF format will keep your document true to the original format.

### **Quality Assurance**

Quality assurance is the time and effort spent by the graphics developer to ensure that the message conveyed by the graphic is true to the data it represents. Adequate quality assurance ensures that a graphic represents data in a manner that is easily viewed and understood by the observer and is not in any way misleading or incorrect. If the graphic presentation is incorrect, the viewer will have a false sense of the data and their implications.

Proofread your charts. If possible, enlist one or more of your co-workers who are familiar with your Profiles to help with the proofing. Also, check that percentages sum to 100%, when applicable, and that counts sum to the total. If percentages do not sum to 100 due to rounding, be sure to document that in a footnote.

Make sure the numbers on your chart match the numbers in the original data and that they are presented in the correct category. Within a presentation, scale changes should be avoided whenever possible so that between-chart comparisons can be made. For example, you may have two charts side by side showing response rates. One may use a scale of 0 to 100. The second chart may zoom in on a scale of 60 to 100. A person comparing these two charts will probably get a distorted view of the data. If you need to enlarge a selected portion of a scale, be sure it is clearly labeled as such. The vertical scale of bar and line charts should include zero.

Answer the following questions when proofreading your charts:

- Is all the text there? (Did the computer truncate text on long lines?)
- Is the spelling correct? (If your graphics package has one, use the built-in spell check.)
- Is your message clear?
- Is the chart simple and easy to understand?
- Are the data accurate?

## **2010 School Health Profiles Report**

- Would color enhance the presentation of the data?

Whether you are compiling a written report or preparing visuals for a presentation, graphics can be used to add emphasis to your message. Graphics can help make sure your readers or audiences leave with the message you want to convey. Effective use of graphics may help you generate interest in your program, gain support for conducting Profiles, and enhance your report or presentation.

### Checklist for Effective Graphics

#### Purpose

- ☐ Identify your audience(s).
- ☐ Specify your objectives.
- ☐ Ensure presentation methods match purpose and audience.

#### Planning

- ☐ Create rough drafts first.
- ☐ Plan on making several drafts of all graphs.
- ☐ Remember that producing graphics sometimes takes longer than expected, so plan time accordingly.

#### Appropriate Use

- ☐ Use graphics to highlight the intended material.
- ☐ Use the correct type of chart for your data.
- ☐ Be sure the chart demonstrates the comparisons you planned.

#### Clarity

- ☐ Avoid unnecessary shadowing, 3D effects, and coloring.
- ☐ Minimize the number of fonts.
- ☐ Use bold and italic versions of fonts for highlighting.
- ☐ Avoid red and green adjacent to each other.
- ☐ Use accurate and complete labels.

#### Simplicity

- ☐ Present the data without extraneous material.
- ☐ Avoid elaborate fill patterns.
- ☐ Avoid too many different patterns.
- ☐ Avoid overly decorative backgrounds.

#### Consistency

- ☐ Use a similar style across all graphics.
- ☐ Use comparable scales for accurate comparison.

#### Accuracy

- ☐ Check that data are correct.
- ☐ Check that spelling is correct.
- ☐ Double-check everything!